

# Postgraduate Diploma

## Life Support in Intensive Care Nursing

Endorsed by:





## Postgraduate Diploma Life Support in Intensive Care Nursing

- » Modality: online
- » Duration: 6 months
- » Certificate: TECH Technological University
- » Dedication: 16h/week
- » Schedule: at your own pace
- » Exams: online

Website: [www.techtitute.com/us/nursing/postgraduate-diploma/postgraduate-diploma-life-support-intensive-care-nursing](http://www.techtitute.com/us/nursing/postgraduate-diploma/postgraduate-diploma-life-support-intensive-care-nursing)

# Index

01

Introduction

---

*p. 4*

02

Objectives

---

*p. 8*

03

Course Management

---

*p. 12*

04

Structure and Content

---

*p. 16*

05

Methodology

---

*p. 20*

06

Certificate

---

*p. 28*

# 01

# Introduction

The incorporation and improvement of advanced CPR techniques, noninvasive monitoring and ventilation, and circulatory support devices have increased patient survival. The response to these critical situations requires updated healthcare professionals both in immediate procedures and in the prolonged care of these people. A process of getting up-to-date that will be much easier to achieve thanks to this TECH university program. A program in 100% online educational format that will lead the graduate to be aware of the advances in Life Support, pharmacology, post-surgical care or assessment of the patient. All this, in addition to the most innovative teaching tools and the most rigorous syllabus created by real experts.



“

*In only 6 months you will be up to date  
in Life Support and lead an effective  
performance in critical situations”*

Technology and the improvement of safety and action protocols in Intensive Care Units have led healthcare professionals to update their knowledge in this field. In this way, the nursing area plays a distinguished role in the actions carried out in critical situations, where the patient's survival is at stake.

In this sense, it is increasingly common for nursing teams to be highly trained to perform CPR, to take responsibility for administering and monitoring treatments, or to perform precise techniques to prevent post-surgical complications. In this line, this Postgraduate Diploma in Life Support in Intensive Care Nursing designed by TECH and of only 6 months duration.

A program based on an advanced syllabus, developed by an excellent team of professionals with high skills and abilities in the care of patients in ICU. In this way, the graduate will obtain a complete refresher of their skills and knowledge in assessment procedures and monitoring of critically ill patients, advances in equipment and Life Support protocols or the safe administration of drugs.

For this purpose, students will have access to video summaries of each topic, videos in detail, specialized readings and simulations of case studies, which will be easily accessible from any digital device with internet connection. In addition, the *Relearning* system will make this process much more agile. A method used by this institution in all its programs, which makes it possible to reduce the number of hours of study and consolidate the most important concepts addressed in a much simpler and more practical way.

Undoubtedly, a flexible university program that responds to the real needs of healthcare professionals, while allowing them to combine their most demanding responsibilities with an avant-garde academic option.

This **Postgraduate Diploma in Life Support in Intensive Care Nursing** contains the most complete and up-to-date scientific program on the market. The most important features include:

- ♦ The development of practical cases presented by experts in Nursing in Intensive Care Units
- ♦ The graphic, schematic, and practical contents with which they are created, provide scientific and practical information on the disciplines that are essential for professional practice
- ♦ Practical exercises where self-assessment can be used to improve learning
- ♦ Its special emphasis on innovative methodologies
- ♦ Theoretical lessons, questions to the expert, debate forums on controversial topics, and individual reflection assignments
- ♦ Content that is accessible from any fixed or portable device with an Internet connection



*Delve into the most relevant advances in pediatric Pharmacology from the comfort of your home"*

“

*An academic option that will take you comfortably to delve into the most recent protocols in drug administration safety”*

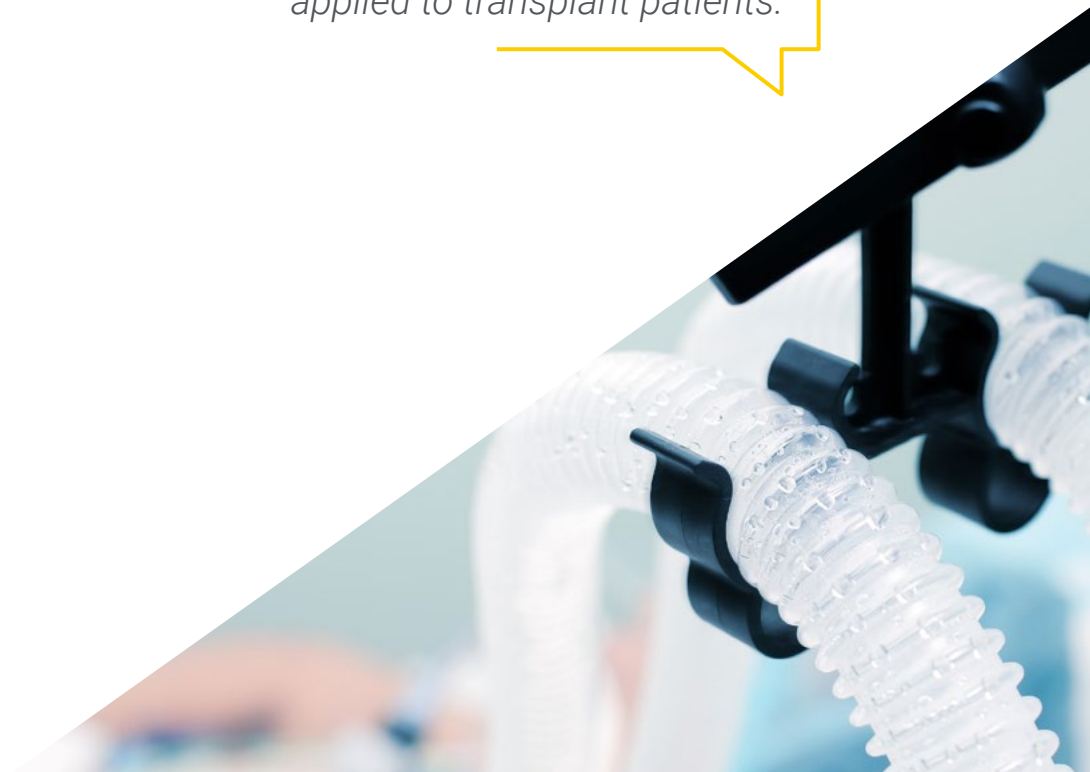
The program's teaching staff includes professionals from sector who contribute their work experience to this educational program, as well as renowned specialists from leading societies and prestigious universities.

Its multimedia content, developed with the latest educational technology, will provide the professional with situated and contextual learning, i.e., a simulated environment that will provide an immersive education programmed to learn in real situations.

The design of this program focuses on Problem-Based Learning, by means of which the professional must try to solve the different professional practice situations that are presented throughout the academic course. For this purpose, the student will be assisted by an innovative interactive video system created by renowned experts.

*If you have a digital device with internet connection you will be able to deepen from anywhere and at any time in the current analytical controls in ICU.*

*Thanks to this program you will be up to date with the most effective critical care procedures applied to transplant patients.*



# 02

# Objectives

This academic option has been designed with the aim of offering the graduate the most recent information based on the latest scientific evidence on the techniques and procedures used in Life Support. In this way, the nursing professional will obtain a complete refresher of their skills and competences in this field. In this way, this refresher will allow them to integrate, from the first day in their practice, the methodology shown in this program.







“

*Get an effective updating process in pediatric VAS by means of clinical case studies and a wide range of high quality pedagogical tools”*



## General Objectives

---

- Update the necessary knowledge in the nursing care of critical patients, in order to increase the quality and safety of nursing practice in the Intensive Care Unit
- Acquire the necessary skills to provide comprehensive care to the critical patient with criteria of speed, efficiency and quality
- Review the fundamental principles of critical care nursing



*A program that will allow you to broaden your skills in the approach to the most recurrent complications in the Postanesthesia Recovery Unit"*





## Specific Objectives

---

### Module 1. Evaluating and Monitoring of a Critically Ill Patient

- ♦ Describe the different modes of invasive and non-invasive monitoring of the critically ill patient, as well as their correct technique
- ♦ Analyze the importance of filling out the different nursing records used in the Intensive Care Unit, and interpret their value in the patient's rehabilitation process

### Module 2. Life Support

- ♦ Gain in-depth knowledge of life support and management of action protocols
- ♦ Know and understand the chains of survival for optimal patient care in different life-threatening situations
- ♦ Acquire advanced knowledge of life support in the adult patient
- ♦ Acquire advanced knowledge of life support in special situations
- ♦ Show the procedures carried out on the patient undergoing CPR and knowledge of the most pioneering techniques

### Module 3. Pharmacology in Intensive Care

- ♦ Update the procedures for the use of the most frequent drugs in the intensive care unit
- ♦ Describe the therapeutic action and most important side effects of frequently used drugs in the intensive care unit
- ♦ Review the standards for administration of drug therapy in the intensive care unit

### Module 4. Anesthesia and Surgery

- ♦ Describe the characteristics, process and treatment of malignant hyperthermia
- ♦ Identify and know how to apply the different types of anesthesia
- ♦ Provide care for the critical post-surgical patient
- ♦ Provide critical care to transplant patients
- ♦ Manage the crash cart in the nursing care of the anesthetized patient
- ♦ Intervene in possible perioperative complications
- ♦ Manage the patient admitted to post-anesthetic reanimation and recognize possible complications

03

# Course Management

In this university program, TECH has brought together a faculty made up of professionals with accumulated experience in Intensive Care Units of reference hospitals. Their excellent background in team management and patient care is evident in this program that seeks above all to facilitate the updating process of graduates. For this reason, the proximity of the faculty will also help students to resolve any questions they may have about the content of this program.



“

*Consolidated nursing professionals  
will be responsible for providing you  
with the most current information on  
Life Support in Intensive Care Nursing”*

## Guest Director



### Ms. Díez Sáenz, Cristina

- ◆ Head Nurse of the Adult Intensive Care Unit at Gregorio Marañón General University Hospital
- ◆ Nursing supervisor at Gregorio Marañón ICU
- ◆ Nurse Assistant in different hospitalization areas in different health centers and hospitals
- ◆ Participation as collaborating researcher in the multicenter project "National validation of the scale of satisfaction with nursing care from the perspective of the critically ill patient"

## Co-Direction



### Ms. Lospitao Gómez, Sara

- ◆ Intensive Care and Interventional Cardiology at University Hospital of Fuenlabrada (UHF)
- ◆ Nurse Cardiac Surgery Post-Surgical Intensive Care Unit PCU 12 de Octubre Hospital
- ◆ Coronary Intensive Care Unit Nurse. 12 de Octubre Hospital
- ◆ Nurse of the Interventional Cardiology Unit (Hemodynamics, EEF and Implants)
- ◆ PR Manager of #TEAyudamos and Member of the group #JuntosxEICáncer
- ◆ Instructor for SVA by the National CPR Plan of SEMICYUC
- ◆ Member of:
  - Care Sub-Commission (HUF)
  - Care Commission (HUF)
  - Secretary of the Ulcers and Wounds Working Group (HUF)



## Professors

### **Ms. Álvarez Carrascal, Inmaculada**

- ◆ Nurse referent of Security in ICU of the Gregorio Marañón General Univeristy Hospital
- ◆ Instrumentalist nurse in the operating room of Churchill Hospital
- ◆ Nurse assistant in various hospital and health center services in the Andalusian Health Service
- ◆ Diploma in Nursing from the University of Seville
- ◆ Expert in and Intensive Care from the Complutense University of Madrid

### **Mr. González Palacios, Rubén**

- ◆ Attending Nurse in the Internal Medicine Unit of the 12 de Octubre General University Hospital
- ◆ Nurse assistant in different Primary Care centers in the Community of Madrid
- ◆ Developer of the mobile application "Compatibility drugs" for intravenous compatibility of drugs

### **Mr. Ruiz Henestrosa Campos, , Manuel Jesús**

- ◆ Nurse Assistant in GUH Gregorio Marañón Hospital
- ◆ Nurse Assistant in GUH Puerta del Mar de Cadiz
- ◆ Associate Professor Practicum III of Nursing
- ◆ Collaborating teacher at the International School of Health Sciences
- ◆ Nebrija University Collaborating Professor
- ◆ Esforem Collaborating Teacher
- ◆ Diploma in Nursing

# 04

## Structure and Content

The syllabus of this Postgraduate Diploma brings together over 600 teaching hours, the latest information on technical and procedural advances in Life Support in Intensive Care Nursing. An academic journey that will allow the professional to update on the assessment and monitoring of the critical patient, basic life support in adults and children or the current pharmacology used in Intensive Care. All of this is complemented by a Virtual Library with high quality didactic material.





“

*A program made up of an advanced Life Support syllabus and didactic material that makes a difference in the academic panorama"*

## Module 1. Evaluating and Monitoring of a Critically Ill Patient

- 1.1. Basic Aspects of Monitoring a Critically Ill Patient
- 1.2. Cardiac and Respiratory Activity
- 1.3. Hemodynamic Status
- 1.4. Neurological Status
- 1.5. Delirium in Intensive Care Units
- 1.6. Monitoring of Sedoanalgesia in Critical Care
- 1.7. Analytical Controls in ICU
- 1.8. Intensive Care Nursing Records
- 1.9. Peripheral Arterial System Examination
- 1.10. Preload Monitoring. Ultrasound

## Module 2. Life Support

- 2.1. General Aspects
- 2.2. Basic Electrocardiography and Arrhythmias
- 2.3. Basic Life Support and AED in Adults
- 2.4. Peripartum Arrhythmia
- 2.5. Airway Management
- 2.6. Advanced Life Support in Adults
- 2.7. Routes of Administering Medication
- 2.8. Resuscitation in Special Cases
- 2.9. Basic Life Support and AED in Children
- 2.10. Recognition and Management of Critically Ill Children
- 2.11. Advanced Airway Management in Pediatrics
- 2.12. Basics of Mechanical Ventilation in Pediatrics
- 2.13. Infusion Routes and Drugs in Pediatric CPR
- 2.14. Pediatric VAS Algorithms and Arrhythmia Treatment
- 2.15. Neonatal Resuscitation
- 2.16. Post-resuscitation Stabilization and Neonatal Transport



**Module 3. Pharmacology in Intensive Care**

- 3.1. Basic Concepts in Pharmacology
- 3.2. Drug Administration Safety
- 3.3. Most Frequently Used Drugs: Analgesia, Sedation and Muscle Relaxants
- 3.4. Most Frequently Used Drugs: Antiarrhythmics, Vasodilators and Inotropes
- 3.5. Most Frequently Used Drugs: Respiratory System and Antibiotics
- 3.6. Drug Administration Precautions: Oral and Enteral Route, Parenteral Route, and Transfusion
- 3.7. Drug Administration Precautions: Cytostatics, Epidural, PCA and Insulin Pumps
- 3.8. Formulas and Dosis Calculation
- 3.9. Enteral Nutrition at and Parenteral
- 3.10. Pharmacology in Pediatrics

**Module 4. Anesthesia and Surgery**

- 4.1. Malignant Hyperthermia
- 4.2. Types of Anesthesia
- 4.3. Critical Postoperative Patient
- 4.4. Cardiac Surgery
- 4.5. Critical Care in Transplant Patients
- 4.6. Nursing Care in Patients under Anesthesia Crash Cart
- 4.7. Postoperative Complications
- 4.8. Interventions that May Prevent Perioperative Complications
- 4.9. Patient Admission to the Post-Anesthesia Recovery Unit
- 4.10. Possible Complications to the Post-Anesthesia Recovery Unit

“

*Get a complete up-to-date on Pharmacology in Intensive Care: from procedures, calculations to protocols for their administration"*

# 05

# Methodology

This academic program offers students a different way of learning. Our methodology uses a cyclical learning approach: **Relearning.**

This teaching system is used, for example, in the most prestigious medical schools in the world, and major publications such as the **New England Journal of Medicine** have considered it to be one of the most effective.



“

*Discover Relearning, a system that abandons conventional linear learning, to take you through cyclical teaching systems: a way of learning that has proven to be extremely effective, especially in subjects that require memorization"*

## At TECH Nursing School we use the Case Method

In a given situation, what should a professional do? Throughout the program, students will face multiple simulated clinical cases, based on real patients, in which they will have to do research, establish hypotheses, and ultimately resolve the situation. There is an abundance of scientific evidence on the effectiveness of the method. Nurses learn better, faster, and more sustainably over time.

*With TECH, nurses can experience a learning methodology that is shaking the foundations of traditional universities around the world.*



According to Dr. Gérvas, the clinical case is the annotated presentation of a patient, or group of patients, which becomes a "case", an example or model that illustrates some peculiar clinical component, either because of its teaching power or because of its uniqueness or rarity. It is essential that the case is based on current professional life, in an attempt to recreate the real conditions in professional nursing practice.

“

*Did you know that this method was developed in 1912, at Harvard, for law students? The case method consisted of presenting students with real-life, complex situations for them to make decisions and justify their decisions on how to solve them. In 1924, Harvard adopted it as a standard teaching method”*

#### The effectiveness of the method is justified by four fundamental achievements:

1. Nurses who follow this method not only grasp concepts, but also develop their mental capacity, by evaluating real situations and applying their knowledge.
2. The learning process has a clear focus on practical skills that allow the nursing professional to better integrate knowledge acquisition into the hospital setting or primary care.
3. Ideas and concepts are understood more efficiently, given that the example situations are based on real-life.
4. Students like to feel that the effort they put into their studies is worthwhile. This then translates into a greater interest in learning and more time dedicated to working on the course.



## Relearning Methodology

At TECH we enhance the case method with the best 100% online teaching methodology available: Relearning.

This university is the first in the world to combine case studies with a 100% online learning system based on repetition combining a minimum of 8 different elements in each lesson, which is a real revolution compared to the simple study and analysis of cases.



*The nurse will learn through real cases and by solving complex situations in simulated learning environments. These simulations are developed using state-of-the-art software to facilitate immersive learning.*



At the forefront of world teaching, the Relearning method has managed to improve the overall satisfaction levels of professionals who complete their studies, with respect to the quality indicators of the best online university (Columbia University).

With this methodology we have trained more than 175,000 nurses with unprecedented success in all specialities regardless of practical workload. Our pedagogical methodology is developed in a highly competitive environment, with a university student body with a strong socioeconomic profile and an average age of 43.5 years old.

*Relearning will allow you to learn with less effort and better performance, involving you more in your specialization, developing a critical mindset, defending arguments, and contrasting opinions: a direct equation to success.*

In our program, learning is not a linear process, but rather a spiral (learn, unlearn, forget, and re-learn). Therefore, we combine each of these elements concentrically.

The overall score obtained by TECH's learning system is 8.01, according to the highest international standards.



This program offers the best educational material, prepared with professionals in mind:



### Study Material

All teaching material is produced by the specialists who teach the course, specifically for the course, so that the teaching content is really specific and precise.

These contents are then applied to the audiovisual format, to create the TECH online working method. All this, with the latest techniques that offer high quality pieces in each and every one of the materials that are made available to the student.



### Nursing Techniques and Procedures on Video

We introduce you to the latest techniques, to the latest educational advances, to the forefront of current medical techniques. All of this in direct contact with students and explained in detail so as to aid their assimilation and understanding. And best of all, you can watch them as many times as you want.



### Interactive Summaries

The TECH team presents the contents attractively and dynamically in multimedia lessons that include audio, videos, images, diagrams, and concept maps in order to reinforce knowledge.

This exclusive educational system for presenting multimedia content was awarded by Microsoft as a "European Success Story".



### Additional Reading

Recent articles, consensus documents and international guidelines, among others. In TECH's virtual library, students will have access to everything they need to complete their course.





#### Expert-Led Case Studies and Case Analysis

Effective learning ought to be contextual. Therefore, TECH presents real cases in which the expert will guide students, focusing on and solving the different situations: a clear and direct way to achieve the highest degree of understanding.



#### Testing & Retesting

We periodically evaluate and re-evaluate students' knowledge throughout the program, through assessment and self-assessment activities and exercises, so that they can see how they are achieving their goals.



#### Classes

There is scientific evidence suggesting that observing third-party experts can be useful.

Learning from an Expert strengthens knowledge and memory, and generates confidence in future difficult decisions.



#### Quick Action Guides

TECH offers the most relevant contents of the course in the form of worksheets or quick action guides. A synthetic, practical, and effective way to help students progress in their learning.



06

# Certificate

The Postgraduate Diploma in Life Support in Intensive Care Nursing guarantees students, in addition to the most rigorous and up-to-date education, access to a Postgraduate Diploma issued by TECH Technological University.



“

*Successfully complete this program and receive your university qualification without having to travel or fill out laborious paperwork"*

This **Postgraduate Diploma in Life Support in Intensive Care Nursing** contains the most complete and up-to-date scientific program on the market.

After the student has passed the assessments, they will receive their corresponding **Postgraduate Diploma** issued by **TECH Technological University** via tracked delivery\*.

The diploma issued by **TECH Technological University** will reflect the qualification obtained in the Postgraduate Diploma, and meets the requirements commonly demanded by labor exchanges, competitive examinations, and professional career evaluation committees.

Title: **Postgraduate Diploma in Life Support in Intensive Care Nursing**

Official N° of Hours: **600 h.**

Endorsed by: The Spanish Society of Intensive Care Nursing and Coronary Units.



\*Apostille Convention. In the event that the student wishes to have their paper diploma issued with an apostille, TECH EDUCATION will make the necessary arrangements to obtain it, at an additional cost.

future  
health confidence people  
education information tutors  
guarantee accreditation teaching  
institutions technology learning  
community commitment  
personalized service innovation  
knowledge present  
development language  
virtual classroom

**tech** technological  
university

## Postgraduate Diploma Life Support in Intensive Care Nursing

- » Modality: online
- » Duration: 6 months
- » Certificate: TECH Technological University
- » Dedication: 16h/week
- » Schedule: at your own pace
- » Exams: online

# Postgraduate Diploma

## Life Support in Intensive Care Nursing

Endorsed by:

